Amendments to the Specification:

Please replace the paragraph beginning at page 3, line 6, which starts with "The structure",with the following amended paragraph:

The structure and the manufacturing method of the non-volatile memory in this invention enable the gate dielectric layer to contain at least one kind of hetero elements, such as Germanium (Ge), Silicon (Si), Nitrogen (N_2), Oxygen (O_2) and so on or other synthetic materials. Therefore, the electron trapping density can be ~~inceased~~ increased. Also the stored electron will stay more stably in the gate dielectric layer. Thus the goals of extending the retention time and solving the problem of bite combination can be achieved. The rebuilt of oxide layer on the top will also assure the electrons to stay more stably in the gate dielectric layer and won't loss away from the top oxide layer.

Please replace the paragraph beginning at page 4, line 5, which starts with "The feature",with the following amended paragraph:

The feature of this invention is to plant at least one kind of hetero element to the charge storage layer of the charge capturing unit element type non-volatile memory. For example, plant some elements such as Germanium (Ge), Silicon (Si), Nitrogen (N_2), Oxygen (O_2) and so on or other synthetic materials on the charge storage layer formed by nitride compounds. The electron storage layer will ~~creat~~ create traps that can capture electron more easily. Also, the electrons will not combined together along with the increase of operation time. Therefore, it can effectively extend the retention time and also effectively solve the bite combination problem.

Please replace the paragraph beginning at page 4, line 23, which starts with "Then, as shown",with the following amended paragraph:

Then, as shown in Figure 3C, proceed the planting of the hetero elements on the gate dielectric layer 42. For the case that the charge storage layer is silicon nitride, one can use Germanium (Ge), Silicon (Si), Nitrogen (N_2), Oxygen (O_2), Nitrogen (N), Oxygen (O), separately or mixture in any proportion, or combined hetero elements with the above elements (implies synthetic conmpounds) to ~~creat~~ create deeper electron trap density.